

CLAIMS

What is claimed is:

1. A below grade utilities vault comprising:

a chamber, said chamber having:

a bottom and

four walls, said four walls being substantially normal to said bottom and to each other, and

a lid, said lid hinged at a top edge of one of said walls and substantially parallel said bottom when in a closed position;

lid lift assist means for assisting a user in lifting said lid to an open position;

locking means for securing said lid in a closed position;

sealing means for sealing said lid against said four walls to prevent ingress of water into the interior of said vault;

venting means for venting gasses from said chamber when said lid is in a closed position and equalizing air pressure between the interior and exterior of said vault;

utilities access means for allowing passage of utilities lines into and out from the interior of said vault;

step means for aiding in descent into and ascent from the interior of said vault;

barrier means for providing a safety barrier around the perimeter of said vault when said lid is in an open position;

flooring means for providing a standing surface, said standing surface being above said bottom and said utilities access means; and

mounting means for mounting utilities connections at a level above said flooring means..

2. A below grade utilities vault, as defined in claim 1, wherein said bottom and said four walls comprise fiber reinforced concrete.

3. A below grade utilities vault, as defined in claim 2, wherein said lid is formed of reinforced fiberglass.

4. A below grade utilities vault, as defined in claim 3, wherein said lid lifting assist means comprises at least one pneumatic piston attached at a first end to at least one of said walls and at a second end to said lid.

5. A below grade utilities vault, as defined in claim 4, wherein said locking means comprises:

a cavity recessed within an outer surface of said lid,

a lockable cover hingedly attached at a side of said cavity,

a locking mechanism mounted within said lockable cover such that said lockable cover may be secured in a closed position lockably sealing said cavity, and

a hasp extending upwardly from one of said walls through a bottom surface of said cavity, said hasp adapted to receive a pad lock.

6. A below grade utilities vault, as defined in claim 5, wherein said venting means comprises a passage through at least one of said walls of said box.

7. A below grade utilities vault, as defined in claim 6, wherein said utilities access means comprises at least one aperture through at least one of said walls of said box proximate said bottom of said box.

8. A below grade utilities vault, as defined in claim 7, wherein said step means comprises a substantially horizontal step platform suspended from at least one of said walls extending for a determined distance from said wall at a determined distance below a top edge of said walls.

9. A below grade utilities vault, as defined in claim 8, wherein said flooring means comprises at least one substantially

horizontal floor platform suspended from at least one of said walls at a determined distance above said bottom of said box, said at least one floor platform fully occupying the area between said walls, said at least one floor platform between said bottom of said box and said step platform.

10. A below grade utilities vault, as defined in claim 9, wherein said mounting means comprises a wiring frame hingedly attached proximate an upper edge of said one of said walls opposite said hinge of said lid, such that said wiring frame can be hinged down into said box when not in use and hinged to a substantially vertical position for working access.

11. A below grade utilities vault, as defined in claim 10, wherein said barrier means comprises said lid when in an open position, said wiring frame when in an open position, and a barrier arm hingedly attached at each of the two ends of said lid such that each of said barrier arms may be hinged against an interior surface of said lid when not in use and hinged to extend to an end of said wiring frame, thereby forming a barrier between said lid and said wiring frame.